



Faculty of Engineering  
Credit Hours Engineering Programs

جامعة عين شمس  
كلية الهندسة  
برامج الساعات المعتمدة

## ENGR 120: Engineering Computation Spring 2013

### S H E E T   0 1

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Sketch the flowchart of following programs:

1. A program that takes the radius of a circle from the user and prints the area.
  2. A program that takes three numbers from the user and prints the largest one.
  3. A program that takes 20 numbers from the user and prints the summation of the numbers.
  4. A program that takes  $N$  numbers from the user and prints the average. **[Homework]**
  5. A program that takes  $N$  numbers from the user and prints the maximum and the minimum.
  6. A program that takes a number  $x$  from the user and prints its factorial.
  7. A program that takes a number  $x$  from the user and evaluates the series:  $y = 1 - \frac{1}{x} + \frac{1}{x^2} - \frac{1}{x^3} + \frac{1}{x^4} - \frac{1}{x^5} + \dots$
  8. A program that takes an integer positive number  $x$  from the user and finds out if it is a prime number or not.
  9. A program that takes two integer positive numbers  $x$  and  $y$  from the user and finds out the Greatest Common Divisor (GCD). **[Homework]**
  10. A program that computes the integration of the sine function over a half period. **[Homework]**
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